

SEQUENCE LISTING

SEQ ID NO: 1 - hCARa sequence ACCESSION CAA83016

1 MASREDEL RN CVVCGDQATG YHFNALTCEG CKGFFRRTVS KSIGPTCPFA
GSCEVSKTQR

5 61 RHCPACRLQK CLDAGMRKDM ILSAEALALR RAKQAQRRRAQ QTPVQLSKEQ
EELIRTL LGA

121 HTRHMGTMFE QFVQFRPPAH LFIHHQPLPT LAPVLPLVTH FADINTFMVL
QVIKFTKDLP

181 VFRSLPIEDQ ISLLKGAAVE ICHIVLNTTF CLQTQNFLCG PLRYTIEDGA

10 RVGFQVEFLE

241 LLFHFHGT LR KLQLQEPEYV LLAAMALFSP DRPGVTQRDE IDQLQEEMAL
TLQSYIKGQQ

301 RRPRDRFLYA KLLGLLAE LR SINEAYGYQI QHIQGLSMM PLLQEICS

15 SEQ ID NO: 2 - mCAR β 1, mCAR1, ACCESSION AAC53349

1 MTAMLTLET M ASEEY GPRN CVVCGDRATG YHFHALTCEG CKGFFRRTVS
KTIGPICPFA

61 GRCEVSKAQR RHCPACRLQK CLNVGMRKDM ILSAEALALR RARQAQRRAE
KASLQLNQQQ

20 121 KELVQILLGA HTRHVGPLFD QFVQFKPPAY LFMHHRPFQP RGPVLPLLTH
FADINTFMVQ

181 QIIKFTKDLP LFRSLTMEDQ ISLLKGAAVE ILHISLNTTF CLQTENFFCG
PLCYKMEDAV

241 HAGFQYEFLE SILHFHKNLK GLHLQEPEYV LMAATALFSP DRPGVTQREE

25 IDQLQEEMAL

301 ILNNHIMEQQ SRLQSRFLYA KLMGLLADLR SINNAYSYEL QRLEELSMT
PLLGEICS

SEQ ID NO: 3 mCAR β 2 mCAR2, ACCESSION AAC53350

30 1 MTAMLTLET M ASEEY GPRN CVVCGDRATG YHFHALTCEG CKGFFRRTVS
KTIGPICPFA

61 GRCEVSKAQR RHCPACRLQK CLNVGMRKDM ILSAEALALR RARQAQRRAE
KASLQLNQQQ

121 KELVQILLGA HTRHVGPLED QFVQFKPPAY LFMHIIRPFQP RGPVLPLLTH
FADINTFMVQ

181 QHKFTKDLP LFRSLTMEDQ ISLLKGAAVE ILHISLNTTF CLQTENFFCG
PLCYKMEDAV

5 241 HAGFQYEFLE SILHFHKNLK GLHLQEPEYV LMAATALFSP GFCMQS

SEQ ID NO: 4 murine CAR β genomic nucleotide sequence Section A

AAAATTTACCCAACATAGATTTATCTAATGTAATTCCTATCTGCAGAACATCCAA
ATACTTTGGAAATTATTTNTTGTGGTTGTAGCTGTTTGAATGTAAACATATATTCA
10 AAAAAACTCTTCATGGTGATGTAGCATTGGGCAAGCTATGAGGATACCTACTTCT
GGTTATTTACTAAAAGTTGATAGCCAGGCAGTGGTGGCACACACCTTTAATCCCA
GCACTTGGGAGGCAGAGGCAGGTGGAATTATGAGTTTGAGGCCAGCCTGGTCTA
CAGAGTGGGTTC AAGGTCAGCCAGGGCTACACAGAGAAACCCTGTCTCAAAAAG
AAGGAGGAGGAGGAGGAAAGAGGAAGAGGAGGAAGAAGATCTTTTGTTTTGAG
15 ATAGCATACAGTGAAAATTTTCGGTTTCTTTAGCAACTCAGTTGTGTACATGATG
TCTTTCTGGAAGCTGTCTTGTGAGCAGACATGTGATGTTTATCACAATAGAAAGC

SEQ ID NO: 5 - murine CAR β genomic nucleotide sequence - Section B

AAAGAGGTCATCAGGCTTGGCAGCAAGTGCCTTTGCCTACCGAGTCTTTACACCA
20 GCTCCACCGTGGTTTTTGTAGACAGTCTCCCACTGGACTGGATTTCAGCAAGAAAG
CTAGGCTTGCCTTCTTGTCTCTGCCTCCTTGGCATTGGAATTATGAGTTGTTCCAC
CGTGCCATTTTTTAAAAATGTAGGTTCTAGGAATTAACTCGGCTCTCGGTGCTTA
TATAGTGAGTACTTTACAGAGGGAGTCACCTTGCCAGCACCTAGAATTCACTTTT
ATTCATATCCCAGTCTCCCCACGTAAGAAAGTGGGATCCCTTCTAGTGTTACACC
25 TAAGTTCTTAGTTGGATAACGAAGTCTTTTTTTTAAACAGATCTCTGGGGCTCAGAA
GGCAAGAGCTCCTTGCAGAGGATTTAACCTCAATTCCTAGTACTCAACTTGCCAG
CTCATAACTGCCTATAACTCTAGTCCCAGAAGATCAGACATTGTCCTCTGATCTCT
GTGGGTACTAGGTATATACATTTAAAAAAAATCAATAAAAAATTTAAAAAAGA
AAAGAAAAAGAAAGAAAGAAAATCCTTTGGGAGCCTGGTATAATTGTTATAGCT
30 ACCTTTTTTTTTTTTTTTTTTTTTTTTTTTTACCATTGCAAACTGCACGTGAAAAAG
CTTGCCATCTCTCCCATTTGTTTCTGGCTTATTCAGGATCCATGCAAAAAGGGGA
GTGTAGATTTAGCCTAAAGCTCACCCACAGGGAAATCCTCCAGGAGTCTAGTAA
GCAGCAGCTTTTAATGAGTCATGAGGTCCTGGCCCCCTCCCCATCTGCCACCAACC
AACACTTCTCGGGCATGCTAGGAACCCCCACCCCACCCCACACCCACACCCAGGT

CTTTGCCCTGGGTCCAGAGTCTGGGTCTACCTACATATGGCACCGAGGATACCT
 AGAGGCCCCATGCAAGAGAAGGCCCTTGTTTTCCAGGCACTAAGGACCGCAGTC
 CCTAATTCCTGGCAGTTCCTGAGATCTCAAGGAAAGCAGGGTCAGCGAGGAGGC
 CTGGGGAGAGGAGGCATCCTACACCCGATCTTGTTGGCCTGCTGCCTAAGGGAAA
 5 CAGGTAGGTAATCCGTTGGAGGCCAGAGACAAAAAGCAACATTTTTGCTTTTAAT
 GTCCTCAGTGCTGGGGAGCCCGGTGTCAGGCTGGGCAGTCTTGGGAAGAGATTCT
 GTAGAGGAGAGAGAAGAGAGTCTATGGCCCAGTGCTGATTCTCAACTCCTCCC
 ACATTCAGGAGACCATGACAGCTATGCTAACACTAGAAACCATGGCCAGTGAAG
 AAGAATATGGGCCGAGGAACTGTGTGGTGTGTGGAGACCGGGCCACAGGCTATC
 10 ATTTCCACGCCCTGACTTGTGAGGGCTGCAAGGGCTTCTTCAGGTGAATGCTTCC
 TCCCCAACAGAAACAACCCCGACATTTCTATCAGTCCACCTTTAAACACTGGTAC
 ACCTCCAAGTTATAATCCTCTTGCAGCTAAGCTGCACTGCCCAGTGTCTAGCACT
 CTCAATCTTGCTGACCACAACGCAGTGTGAACTGGTGACCTAATGACAAGGCA
 GGTTAACCATTTGTCCCAGAGACAGAGCCTAAGAGTCAAGAACACTTGTGTAGC
 15 ACACACTACCTGCAAAGCACCGAGATGATTGCCACACGAGGGTTCCTGAGTAAC
 CTTGTGTTCTCATGAAAACGCTCCAACCTCTGAAGACCTTTGAGCACAGCTC
 AGATGAGTCTGTTGTTAAATCGATCC

SEQ ID NO: 6 - murine CAR β genomic nucleotide sequence -- Section C

20 TGCATTGCTTTCTACTGAAGTGTATCACAGATGAATATGAGATCGACAGAAAGTG
 TGCAGGGATCCCCCTGCCATCTGGAAACACTTAATTCAATGAAGTCCCAAGGAA
 GCCTCAGAAACTCTTTCTTCCTTCCTCCTTATCTGGGGAGGTGGAGTGGCCC
 CAACTGAAGGGATGGCTGAAAGGTGCTCGCTGCTGTTCTCAACAGCTTTGTCATC
 TCTCTTGCTGACACAGTGATACTGTCAGCAGAAGCCCTGGCATTGCGGCGAGCC
 25 AGACAGGCACAGCGGCGGGCAGAGAAAGCATCTTTGCAACTGAATCAGCAGCAG
 AAAGAACTGGTCCAGATCCTCCTCGGGGCCCCAACTCGCCATGTGGGGCCCCATGT
 TTGACCAGTTTGTGCAGTTCAAGGTGAGAACTTAACCAGGATGTGACCTGGGTAC
 CTGAGGAGGTAACCCACAGAAGAAGGCTATGCCCTGATGGAGGACA

30 SEQ ID NO: 7- Sensor peptide sequence
 ILRKLLQE

SEQ ID NO: 8- Hamster CAR nucleotide sequence

CTGTGTTTTCTAGGGACCAAGGACAATCCCTAATTCCCTGCAGTTCCTGAGACCACA
 AGGAAAGCAGGGTCATCGTGGAGGCTTGGAGACAGGCATCTCATACCAGATTTT
 GTGACCTGCGTGTGTCATACTGCCTAAGAGAAACAGGAGACCATGACAGCTACG
 CTAACACTCGAAACCAAGGCCAGTGGAGAGGAATATGGACCGAGGAACTGTGTG
 5 GTGTGTGGAGACCGAGCCACGGGCTACCATTTCCATGCCCTGACTTGTGAGGGCT
 GCAAAGGCTTCTTCAGACGAACTGTCAGCAAAACCATTAGTCCCATCTGTCCATT
 TTCTGGAAGCTGTGAGATCAGCAGAGCCCAGAGACGCCACTGCCCAGCCTGCAG
 GTTGCAAGAAGTGCCTAAACGCTGGCATGAGGAAAGACATGATACTGTCAGCAGA
 AGCCCTGTCGTTGCGGCGAGCCAGGCAGGCACAGCGGCGGGCACAAAAAGCTTC
 10 CGTGCAGATGACTCAGGAGCGGAAGGAGCTGGTCCAGACCCTCATAGGGGGCCCA
 CACCCGCCACATGGGGCCCCATGTTTGACCAGTTTGTGAAGCTCAGGCCTCCAGCT
 TACCTGTTACCCATCACCGGCCCTCCTCCCCGCTGGTCCCCCCCCGCGTTACCACT
 GCTCACACACTTTGCAGATGTCAACACTTTTCATGGTGCAGCAGATTATCAAGTTC
 ACCAAGGAACTGCCCCCTTTTTCGGTCCCTACCCGTGGAGGACCAGATCTCCCTTC
 15 TCAAGGGAGCAGCTGTGGAAATATTGCATATCTCACTCAACACTACTTTCTGTCT
 TCAAACACAGAATTTCTTCTGTGGGCCACTTTGCTACAAAATGGAAGACGCAGCC
 CACGCAGGGTTCCGGTACGAATATGTGGAGTTGATCTTTCGCTTCCATGGGACAC
 TGAAGCGACTGCAGCTCCAAGAGCCTGAGTATGTGCTCATGACTGCCATGGCCCT
 CTTCTCTCCTGACAGGCCTGGAATCACCCAGAGAGAAGAGATTGACCAGCTGCA
 20 AGAGGAGATGGCACTGATTTTGAACAACACTACATTATGGAACAGCAGCCAAGGCC
 CCAGAGTCGGTTTCTGTACGCAAAGCTGATGGGCCTGCTGGCTGAGCTCCGGAGC
 ATAAACAATGCATACTCATATGAAATACGGCGCATCCAGGGACTGTCCGCTATG
 ATGCCACTACTTGGGGAAATCTGCAGCTGAGGCTCAGGCTTGCTCCTTCCCCAG
 GGCCCCTGGGATTTCATTGGACTGGAAAGGGGAAATTGCTGAGCTAAAAGGAGCT
 25 CAGTGACAGCAAAAAACACTGGACAGTNGGAAAAAANNNNNNNNNNNNAAA
 AGCGACCTGCCCCGGGCGGCCGTTTCAGC

SEQ ID NO: 9- Predicted amino acid sequence of hamster CAR

30 MTATLTLETKASGEEYGPRNCVVCGRATGYHFHALTCEGCKGFFRRTVSKTISPICP
 FSGSCEISRAQRRHCPACRLQKCLNAGMRKDMILSAEALSLRRARQAQRRRAQKASV
 QMTQERKELVQTLIGAHTRHMGPMFDQFVKLRPPAYLFTHHRPSSPLVPPALPLLTH
 FADVNTFMVQQIIFTKELPLFRSLPVEDQISLLKGAAVEILHISLNTTFCLQTQNFFCG
 PLCYKMEDAAHAGFRYVEYVELIFRFHGTLLKRLQLQEPEYVLMTAMALFSPDRPGITQ

REEIDQLQEEMALILNNYIMEQQPRPQSRFLYAKLMGLLAELRSINNAYSYEIRRIQG
LSAMMPLLGEICS

SEQ ID NO: 10 - Oligo 2930

5 CCATAAACGTGTTGATATCTGCAAAGTGTGCGAGCAGAGGCAACACGGGGCCCC
GAGG

SEQ ID NO: 11 - Oligo 2931

10 CTCTACAGCCTCCAGCCTATCTGTTCATGCATCACCGGCCTTCCAGCCTCGGGGC
CC